Math 212
Quiz 10

W 14 Sep 2016

Your name: _____

Exercise

(2 pt) Let $f : \mathbf{R}^n \to \mathbf{R}$ be a function, and let $a = (a_1, \ldots, a_n)$ be a point of $\mathbf{R}^n$. This exercise investigates the limit

$$\lim_{x \to a} f(x).$$

Mark each of the following statements True or False. No justification is necessary.

(a) (1 pt) Let $n = 1$, i.e. $f : \mathbf{R} \to \mathbf{R}$. To compute the limit, it suffices to check x approaching a along lines in $\mathbf{R}$.

(b) (1 pt) Let $n = 2$, i.e. $f : \mathbf{R}^2 \to \mathbf{R}$. To compute the limit, it suffices to check x approaching a along lines in $\mathbf{R}^2$.